



Paper copy of Sequence Listing
(pages 1 to 55)

Attorney Docket No.: P-AR 4681
Serial No.: 09/922,226

#6

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By Andrea L. Gashler
Andrea L. Gashler, Reg. No. 41,029

December 17, 2001
Date of Signature



- 1 -

SEQUENCE LISTING

<110> Zhao, Yi
Thacher, Scott M.
Xiao, Jia-Hao
Kusari, Jyotirmoy
Chandraratna, Roshantha A.

<120> Methods of Screening For Compounds That
Modulate Hormone Receptor Activity

<130> P-AR 4681

<140> US 09/922,226

<141> 2001-08-02

<150> US 60/284,797

<151> 2001-04-18

<160> 191

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 462

<212> PRT

<213> Homo sapiens

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			20					25					30			
Leu	His	Pro	Ser	Leu	Gly	Pro	Gly	Ile	Gly	Ser	Pro	Gly	Gln	Leu	His	
			35				40					45				
Ser	Pro	Ile	Ser	Thr	Leu	Ser	Ser	Pro	Ile	Asn	Gly	Met	Gly	Pro	Pro	
			50				55				60					
Phe	Ser	Val	Ile	Ser	Ser	Pro	Met	Gly	Pro	His	Ser	Met	Ser	Val	Pro	
65						70				75					80	
Thr	Thr	Pro	Thr	Leu	Gly	Phe	Ser	Thr	Gly	Ser	Pro	Gln	Leu	Ser	Ser	
				85					90					95		
Pro	Met	Asn	Pro	Val	Ser	Ser	Ser	Glu	Asp	Ile	Lys	Pro	Pro	Leu	Gly	
			100					105					110			
Leu	Asn	Gly	Val	Leu	Lys	Val	Pro	Ala	His	Pro	Ser	Gly	Asn	Met	Ala	
			115				120					125				
Ser	Phe	Thr	Lys	His	Ile	Cys	Ala	Ile	Cys	Gly	Asp	Arg	Ser	Ser	Gly	
			130				135				140					
Lys	His	Tyr	Gly	Val	Tyr	Ser	Cys	Glu	Gly	Cys	Lys	Gly	Phe	Phe	Lys	
145						150				155					160	
Arg	Thr	Val	Arg	Lys	Asp	Leu	Thr	Tyr	Thr	Cys	Arg	Asp	Asn	Lys	Asp	
				165				170						175		

Cys	Leu	Ile	Asp	Lys	Arg	Gln	Arg	Asn	Arg	Cys	Gln	Tyr	Cys	Arg	Tyr
			180					185					190		
Gln	Lys	Cys	Leu	Ala	Met	Gly	Met	Lys	Arg	Glu	Ala	Val	Gln	Glu	Glu
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Arg	Gln	Arg	Gly	Lys	Asp	Arg	Asn	Glu	Asn	Glu	Val	Glu	Ser	Thr	Ser
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Ala	Val	Glu	Pro	Lys	Thr	Glu	Thr	Tyr	Val	Glu	Ala	Asn	Met	Gly	Leu
				245					250					255	
Asn	Pro	Ser	Ser	Pro	Asn	Asp	Pro	Val	Thr	Asn	Ile	Cys	Gln	Ala	Ala
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Asp	Lys	Gln	Leu	Phe	Thr	Leu	Val	Glu	Trp	Ala	Lys	Arg	Ile	Pro	His
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Phe	Ser	Glu	Leu	Pro	Leu	Asp	Asp	Gln	Val	Ile	Leu	Leu	Arg	Ala	Gly
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Trp	Asn	Glu	Leu	Leu	Ile	Ala	Ser	Phe	Ser	His	Arg	Ser	Ile	Ala	Val
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Lys	Asp	Gly	Ile	Leu	Leu	Ala	Thr	Gly	Leu	His	Val	His	Arg	Asn	Ser
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Ala	His	Ser	Ala	Gly	Val	Gly	Ala	Ile	Phe	Asp	Arg	Val	Leu	Thr	Glu
			340					345					350		
Leu	Val	Ser	Lys	Met	Arg	Asp	Met	Gln	Met	Asp	Lys	Thr	Glu	Leu	Gly
		355					360					365			
Cys	Leu	Arg	Ala	Ile	Val	Leu	Phe	Asn	Pro	Asp	Ser	Lys	Gly	Leu	Ser
	370					375					380				
Asn	Pro	Ala	Glu	Val	Glu	Ala	Leu	Arg	Glu	Lys	Val	Tyr	Ala	Ser	Leu
	385				390					395					400
Glu	Ala	Tyr	Cys	Lys	His	Lys	Tyr	Pro	Glu	Gln	Pro	Gly	Arg	Phe	Ala
				405					410					415	
Lys	Leu	Leu	Leu	Arg	Leu	Pro	Ala	Leu	Arg	Ser	Ile	Gly	Leu	Lys	Cys
			420					425					430		
Leu	Glu	His	Leu	Phe	Phe	Phe	Lys	Leu	Ile	Gly	Asp	Thr	Pro	Ile	Asp
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 <213> Homo sapiens

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 20 25 30
 Ala Ser Arg Trp Arg Arg Arg Arg Pro Trp Leu Asp Pro Ala Ala Ala
 35 40 45
 Ala Ala Ala Ala Val Ala Gly Gly Glu Gln Gln Thr Pro Glu Pro Glu
 50 55 60
 Pro Gly Glu Ala Gly Arg Asp Gly Met Gly Asp Ser Gly Arg Asp Ser

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Arg	Ser	Pro	Asp	Ser	Ser	Ser	Pro	Asn	Pro	Leu	Pro	Gln	Gly	Val
				85					90					95
Pro	Pro	Ser	Pro	Pro	Gly	Pro	Pro	Leu	Pro	Pro	Ser	Thr	Ala	Pro
			100					105					110	Ser
Leu	Gly	Gly	Ser	Gly	Ala	Pro	Pro	Pro	Pro	Pro	Met	Pro	Pro	Pro
		115					120					125		
Leu	Gly	Ser	Pro	Phe	Pro	Val	Ile	Ser	Ser	Ser	Met	Gly	Ser	Pro
	130					135					140			Gly
Leu	Pro	Pro	Pro	Ala	Pro	Pro	Gly	Phe	Ser	Gly	Pro	Val	Ser	Ser
145					150					155				160
Gln	Ile	Asn	Ser	Thr	Val	Ser	Leu	Pro	Gly	Gly	Gly	Ser	Gly	Pro
				165					170					175
Glu	Asp	Val	Lys	Pro	Pro	Val	Leu	Gly	Val	Arg	Gly	Leu	His	Cys
			180					185					190	Pro
Pro	Pro	Pro	Gly	Gly	Pro	Gly	Ala	Gly	Lys	Arg	Leu	Cys	Ala	Ile
		195					200					205		Cys
Gly	Asp	Arg	Ser	Ser	Gly	Lys	His	Tyr	Gly	Val	Tyr	Ser	Cys	Glu
	210					215					220			Gly
Cys	Lys	Gly	Phe	Phe	Lys	Arg	Thr	Ile	Arg	Lys	Asp	Leu	Thr	Tyr
225					230					235				240
Cys	Arg	Asp	Asn	Lys	Asp	Cys	Thr	Val	Asp	Lys	Arg	Gln	Arg	Asn
			245						250					255
Cys	Gln	Tyr	Cys	Arg	Tyr	Gln	Lys	Cys	Leu	Ala	Thr	Gly	Met	Lys
			260					265					270	Arg
Glu	Ala	Val	Gln	Glu	Glu	Arg	Gln	Arg	Gly	Lys	Asp	Lys	Asp	Gly
		275					280					285		Asp
Gly	Glu	Gly	Ala	Gly	Gly	Ala	Pro	Glu	Glu	Met	Pro	Val	Asp	Arg
	290					295					300			Ile
Leu	Glu	Ala	Glu	Leu	Ala	Val	Glu	Gln	Lys	Ser	Asp	Gln	Gly	Val
305					310					315				320
Gly	Pro	Gly	Gly	Thr	Gly	Gly	Ser	Gly	Ser	Ser	Pro	Asn	Asp	Pro
				325					330					335
Thr	Asn	Ile	Cys	Gln	Ala	Ala	Asp	Lys	Gln	Leu	Phe	Thr	Leu	Val
			340					345					350	Glu
Trp	Ala	Lys	Arg	Ile	Pro	His	Phe	Ser	Ser	Leu	Pro	Leu	Asp	Asp
		355					360					365		Gln
Val	Ile	Leu	Leu	Arg	Ala	Gly	Trp	Asn	Glu	Leu	Leu	Ile	Ala	Ser
	370					375					380			Phe
Ser	His	Arg	Ser	Ile	Asp	Val	Arg	Asp	Gly	Ile	Leu	Leu	Ala	Thr
385					390					395				400
Leu	His	Val	His	Arg	Asn	Ser	Ala	His	Ser	Ala	Gly	Val	Gly	Ala
				405					410					415
Phe	Asp	Arg	Val	Leu	Thr	Glu	Leu	Val	Ser	Lys	Met	Arg	Asp	Met
			420					425					430	Arg
Met	Asp	Lys	Thr	Glu	Leu	Gly	Cys	Leu	Arg	Ala	Ile	Ile	Leu	Phe
		435				440						445		Asn
Pro	Asp	Ala	Lys	Gly	Leu	Ser	Asn	Pro	Ser	Glu	Val	Glu	Val	Leu
		450				455					460			Arg
Glu	Lys	Val	Tyr	Ala	Ser	Leu	Glu	Thr	Tyr	Cys	Lys	Gln	Lys	Tyr
465					470					475				480
Glu	Gln	Gln	Gly	Arg	Phe	Ala	Lys	Leu	Leu	Leu	Arg	Leu	Pro	Ala
				485					490					495

Arg Ser Ile Gly Leu Lys Cys Leu Glu His Leu Phe Phe Phe Lys Leu
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Ile Gly Asp Thr Pro Ile Asp Thr Phe Leu Met Glu Met Leu Glu Ala
515 520 525
Pro His Gln Leu Ala
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20 25 30
Leu Ser Thr Gly Lys Pro Met Asp Ser His Pro Ser Tyr Thr Asp Thr
35 40 45
Pro Val Ser Ala Pro Arg Thr Leu Ser Ala Val Gly Thr Pro Leu Asn
50 55 60
Ala Leu Gly Ser Pro Tyr Arg Val Ile Thr Ser Ala Met Gly Pro Pro
65 70 75 80
Ser Gly Ala Leu Ala Ala Pro Pro Gly Ile Asn Leu Val Ala Pro Pro
85 90 95
Ser Ser Gln Leu Asn Val Val Asn Ser Val Ser Ser Ser Glu Asp Ile
100 105 110
Lys Pro Leu Pro Gly Leu Pro Gly Ile Gly Asn Met Asn Tyr Pro Ser
115 120 125
Thr Ser Pro Gly Ser Leu Val Lys His Ile Cys Ala Ile Cys Gly Asp
130 135 140
Arg Ser Ser Gly Lys His Tyr Gly Val Tyr Ser Cys Glu Gly Cys Lys
145 150 155 160
Gly Phe Phe Lys Arg Thr Ile Arg Lys Asp Leu Ile Tyr Thr Cys Arg
165 170 175
Asp Asn Lys Asp Cys Leu Ile Asp Lys Arg Gln Arg Asn Arg Cys Gln
180 185 190
Tyr Cys Arg Tyr Gln Lys Cys Leu Val Met Gly Met Lys Arg Glu Ala
195 200 205
Val Gln Glu Glu Arg Gln Arg Ser Arg Glu Arg Ala Glu Ser Glu Ala
210 215 220
Glu Cys Ala Thr Ser Gly His Glu Asp Met Pro Val Glu Arg Ile Leu
225 230 235 240
Glu Ala Glu Leu Ala Val Glu Pro Lys Thr Glu Ser Tyr Gly Asp Met
245 250 255
Asn Met Glu Asn Ser Thr Asn Asp Pro Val Thr Asn Ile Cys His Ala
260 265 270
Ala Asp Lys Gln Leu Phe Thr Leu Val Glu Trp Ala Lys Arg Ile Pro
275 280 285
His Phe Ser Asp Leu Thr Leu Glu Asp Gln Val Ile Leu Leu Arg Ala
290 295 300
Gly Trp Asn Glu Leu Leu Ile Ala Ser Phe Ser His Arg Ser Val Ser

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305          310          315          320
Val Gln Asp Gly Ile Leu Leu Ala Thr Gly Leu His Val His Arg Ser
          325          330          335
Ser Ala His Ser Ala Gly Val Gly Ser Ile Phe Asp Arg Val Leu Thr
          340          345          350
Glu Leu Val Ser Lys Met Lys Asp Met Gln Met Asp Lys Ser Glu Leu
          355          360          365
Gly Cys Leu Arg Ala Ile Val Leu Phe Asn Pro Asp Ala Lys Gly Leu
          370          375          380
Ser Asn Pro Ser Glu Val Glu Thr Leu Arg Glu Lys Val Tyr Ala Thr
385          390          395          400
Leu Glu Ala Tyr Thr Lys Gln Lys Tyr Pro Glu Gln Pro Gly Arg Phe
          405          410          415
Ala Lys Leu Leu Leu Arg Leu Pro Ala Leu Arg Ser Ile Gly Leu Lys
          420          425          430
Cys Leu Glu His Leu Phe Phe Phe Lys Leu Ile Gly Asp Thr Pro Ile
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Asp Thr Phe Leu Met Glu Met Leu Glu Thr Pro Leu Gln Ile Thr
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Tyr Gln Lys Cys Leu Ala Met Gly Met
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<210> 5
 <211> 57
 <212> PRT
 <213> T. cystophoro

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Val Lys His Tyr Gly Val Phe Ala Cys Glu Gln Cys Lys Gly Phe Phe
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His Cys Asp Thr Asp Lys Lys Ser Arg Asn Arg Cys Gln Tyr Cys Arg

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Phe Gln Lys Cys Val Gln Val Gly Met
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20 25 30
Glu Gly Lys Cys Val Ile Asp Lys Val Thr Arg Asn Gln Cys Gln Glu
35 40 45
Cys Arg Phe Lys Lys Cys Ile Tyr Val Gly Met Ala Thr Asp Leu Val
50 55 60
Leu Asp Gln Ser Lys Arg Leu Ala Lys Arg Lys Leu Ile Glu Glu Asn
65 70 75 80
Arg Glu Lys

<210> 7
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<213> Homo sapiens

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Gln Cys Thr Ile Asp Lys Asn Arg Arg Lys Ser Cys Gln Ala Cys Arg
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Leu Arg Lys Cys Tyr Glu Val Gly Met Met Lys Gly Gly
50 55 60

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<211> 57
<212> PRT
<213> Rattus sp.

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20 25 30
Asp Cys Ile Ile Asp Lys Ile Arg Arg Lys Asn Cys Pro Ala Cys Arg
35 40 45

Tyr Arg Lys Cys Leu Gln Ala Gly Met
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Val Ile Leu Leu
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<211> 20
<212> PRT
<213> T. cystophora

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1 5 10 15
Val Val Leu Leu
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<213> Homo sapiens

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1 5 10 15
Ile Ile Leu Leu
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<213> Homo sapiens

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<210> 13

<211> 20
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1 5

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1 5

<210> 25

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<400> 25

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<213> Artificial Sequence

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<210> 41

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

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Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu

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<220>

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Asp Thr Tyr Arg Tyr Ile
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<210> 43

<211> 6

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<213> Artificial Sequence

<220>

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<400> 43

His His His His His His
1 5

<210> 44

<211> 5

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<223> Xaa = Any Amino Acid

<221> VARIANT

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Asp	Glu	Glu	Ser	Glu	Glu	Asp
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<223> Xaa=Arg or Lys

<221> VARIANT

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<223> Xaa= any amino acid

<221> VARIANT

<222> (1)...(5)

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> (1)...(5)

<223> Xaa = Any Amino Acid

<400> 47

Xaa Ser Pro Xaa Xaa

1 5

<210> 48

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 48

Glu Glu Glu Ile Tyr Glu Glu Ile Glu

1 5

<210> 49

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<221> VARIANT

<222> 6

<223> Xaa=Glu or Gly

<221> VARIANT

<222> (1)...(9)

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> (1)...(9)

<223> Xaa = Any Amino Acid

<400> 49

Asp Glu Glu Ile Tyr Xaa Glu Phe Phe

1 5

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<223> Xaa = Any Amino Acid

<400> 51
Xaa Glu Xaa Ile Tyr Gly Val Leu Phe
1 5

<210> 52
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<400> 52
aggaattctg cgccatctgc ggggaccgc

<210> 53
<211> 35

<212> DNA

<213> Homo sapiens

<400> 53

aggaattcaa gcggaagcc gtgcaggagg agcgg 35

<210> 54

<211> 29

<212> DNA

<213> Homo sapiens

<400> 54

aggaattctc gccgaacgac cctgtcacc 29

<210> 55

<211> 33

<212> DNA

<213> Homo sapiens

<400> 55

agggtaccct aagtcatttg gtgcggcgcc tcc 33

<210> 56

<211> 32

<212> DNA

<213> Homo sapiens

<400> 56

agggtaccct agatgagctt gaagaagaag ag 32

<210> 57

<211> 32

<212> DNA

<213> Homo sapiens

<400> 57

aggaattcat ggacaccaaa catttctgc cg 32

<210> 58

<211> 30

<212> DNA

<213> Homo sapiens

<400> 58

aggaattcga tgtgcttggt gaaggaagcc 30

<210> 59

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

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<400> 59

Leu Arg Arg Ala Ser Leu Gly
1 5

<210> 60

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

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<221> AMIDATION

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<223> at the C-terminal

<400> 60

Gly Arg Thr Gly Arg Arg Asn Ser Ile
1 5

<210> 61

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 7

<223> Xaa=Leu or Val

<221> VARIANT

<222> (1)...(11)

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> (1)...(11)

<223> Xaa = Any Amino Acid

<400> 61

Tyr Leu Arg Arg Ala Ser Xaa Ala Gln Leu Thr
1 5 10

<210> 62

<220>

<223> synthetic peptide

<400> 62
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<210> 63

<220>

<223> synthetic peptide

<400> 63
000

<210> 64

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 64

Gly	Ser	Lys	Arg	Ser	Asn	Ser	Val	Asp	Thr
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<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<221> VARIANT

<222> 8

<223> Xaa=Val or Ile

<221> VARIANT

<222> (1)...(10)

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> (1)...(10)

<223> Xaa = Any Amino Acid

<400> 65

Arg	Thr	Lys	Arg	Ser	Gly	Ser	Xaa	Tyr	Glu
1				5					10

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<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 66

Ala Gly Ala Arg Arg Lys Ala Ser Gly Pro Pro
1 5 10

<210> 67

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 67

Lys Ala Lys Thr Arg Ser Ser Arg Ala
1 5

<210> 68

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 68

Gly Lys Lys Arg Lys Arg Ser Arg Lys Glu Ser Tyr Ser
1 5 10

<210> 69

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 69

Glu Arg Arg Lys Ser Lys Ser Gly Ala Gly
1 5 10

<210> 70

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 70

Tyr	Leu	Arg	Arg	Arg	Leu	Ser	Asp	Ser	Asn	Phe
1				5					10	

<210> 71

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

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<400> 71

Asn	Tyr	Arg	Gly	Tyr	Ser	Leu	Gly	Asn	Tyr	Val
1				5					10	

<210> 72

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 72

Arg	Ala	Ser	Phe	Gly	Ser	Arg	Gly	Ser	Gly	Ser
1				5					10	

<210> 73

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

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<400> 73

Ser	Arg	Thr	Ser	Ala	Val	Pro	Thr
1				5			

<210> 74

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 74

Pro Leu Ser Arg Thr Leu Ser Val Ser Ser
1 5 10

<210> 75

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 75

Ala Val Arg Arg Ser Asp Arg Ala
1 5

<210> 76

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 76

Met Arg Arg Ser Val Ser Glu Ala Ala Leu
1 5 10

<210> 77

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 77

Met Arg Ser Ser Met Ser Gly Leu His Leu
1 5 10

<210> 78

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 78

Ser Gln Arg Arg Arg Ser Leu Glu Pro Pro Asp
1 5 10

<210> 79

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 79

Lys Arg Lys Arg Lys Ser Ser Gln Cys Leu Val Lys
1 5 10

<210> 80

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 80

Lys His Lys Arg Lys Ser Ser Gln Cys Leu Val Lys
1 5 10

<210> 81

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 81

Arg Asn Thr Asp Gly Ser Thr Asp Tyr Gly Ile
1 5 10

<210> 82

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 82

Arg Arg Lys Gly Thr Asp Val
1 5

<210> 83

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 83

Ile Arg Arg Arg Arg Pro Thr Pro Ala Thr
1 5 10

<210> 84

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 84

Lys Pro Arg Arg Lys Asp Thr Pro Ala Leu
1 5 10

<210> 85

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 85

Lys Arg Val Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr
1 5 10

<210> 86

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 86

Arg Phe Asp Arg Arg Val Ser Val Cys Ala
1 5 10

<210> 87
<211> 16
<212> PRT
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<220>
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<400> 87
Lys Arg Lys Tyr Leu Lys Lys Leu Thr Arg Arg Ala Ser Phe Ser Ala
1 5 10 15

<210> 88
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 88
Pro Arg Arg Asp Ser Thr Glu Gly Phe
1 5

<210> 89
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 89
Gln Arg Arg Thr Ser Val Ser Gly Glu
1 5

<210> 90
<211> 8
<212> PRT
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<220>
<223> synthetic peptide

<400> 90
Gly Arg Gly Leu Ser Leu Ser Arg

1 5

<210> 91
<211> 7
<212> PRT
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<220>
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<400> 91
Leu Arg Arg Ala Ser Val Ala
1 5

<210> 92
<211> 6
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<220>
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<400> 92
Arg Arg Ala Ser Val Ala
1 5

<210> 93
<211> 5
<212> PRT
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<220>
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<400> 93
Arg Arg Ala Ser Val
1 5

<210> 94
<211> 7
<212> PRT
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<220>
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<400> 94
Leu Arg Arg Ala Ser Leu Gly
1 5

<210> 95
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 95
Arg Arg Ala Ser Leu Gly
1 5

<210> 96
<211> 6
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<220>
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<400> 96
Leu Arg Arg Ala Ser Leu
1 5

<210> 97
<211> 12
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<220>
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<400> 97
Val Leu Gln Arg Arg Arg Gly Ser Ser Ile Pro Gln
1 5 10

<210> 98
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 98
Ala Arg Thr Lys Arg Ser Gly Ser Val
1 5

<210> 99
<211> 8
<212> PRT
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<220>
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<400> 99
Arg Thr Lys Arg Ser Gly Ser Val
1 5

<210> 100
<211> 7
<212> PRT
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<220>
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<400> 100
Leu Arg Lys Ala Ser Leu Gly
1 5

<210> 101
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 101
Leu His Arg Ala Ser Leu Gly
1 5

<210> 102
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<221> MOD_RES
<222> 2
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<221> VARIANT

<222> (1)...(7)

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> (1)...(7)

<223> Xaa = Any Amino Acid

<400> 102

Leu Xaa Arg Ala Ser Leu Gly
1 5

<210> 103

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 103

Val Leu Gln Arg Arg Arg Gly Ser Ser Ile Pro Gln
1 5 10

<210> 104

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 104

Val Leu Gln Ala Arg Arg Gly Ser Ser Ile Pro Gln
1 5 10

<210> 105

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 105

Arg Thr Lys Arg Ser Gly Ser Val
1 5

<210> 106

<211> 8

<212> PRT
<213> Artificial Sequence

<220>
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<400> 106
Arg Thr Gly Arg Ser Gly Ser Val
1 5

<210> 107
<211> 8
<212> PRT
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<220>
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<400> 107
Arg Arg Arg Arg Pro Thr Pro Ala
1 5

<210> 108
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 108
Val Leu Gln Arg Arg Arg Gly Thr Ser Ile Pro Gln
1 5 10

<210> 109
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 109
Val Leu Gln Ala Arg Arg Gly Thr Ser Ile Pro Gln
1 5 10

<210> 110
<211> 12
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 110

Val	Leu	Gln	Arg	Arg	Arg	Pro	Thr	Ser	Ile	Pro	Gln
1				5					10		

<210> 111

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 111

Arg	Arg	Ala	Ser	Phe
1				5

<210> 112

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 112

Arg	Arg	Ala	Ser	Ile
1				5

<210> 113

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<221> VARIANT

<222> (1)...(8)

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> (1)...(8)

<223> Xaa = Any Amino Acid

<400> 113

Arg Xaa Lys Arg Xaa Xaa Ser Xaa
1 5

<210> 114

<211> 105

<212> PRT

<213> Homo sapiens

<400> 114

Met	Glu	Pro	Lys	Arg	Ile	Arg	Glu	Gly	Tyr	Leu	Val	Lys	Lys	Gly	Ser
1				5					10					15	
Val	Phe	Asn	Thr	Trp	Lys	Pro	Met	Trp	Val	Val	Leu	Leu	Glu	Asp	Gly
		20						25					30		
Ile	Glu	Phe	Tyr	Lys	Lys	Lys	Ser	Asp	Asn	Ser	Pro	Lys	Gly	Met	Ile
		35					40					45			
Pro	Leu	Lys	Gly	Ser	Thr	Glu	Thr	Ser	Pro	Cys	Gln	Asp	Phe	Gly	Lys
	50					55					60				
Arg	Met	Phe	Val	Phe	Lys	Ile	Thr	Thr	Thr	Lys	Gln	Gln	Asp	His	Phe
65					70					75					80
Phe	Gln	Ala	Ala	Phe	Leu	Glu	Glu	Arg	Asp	Ala	Trp	Val	Arg	Asp	Ile
			85					90						95	
Asn	Lys	Ala	Ile	Lys	Cys	Ile	Glu	Gly							
			100					105							

<210> 115

<211> 112

<212> PRT

<213> Homo sapiens

<400> 115

Glu	Glu	Phe	Arg	Gly	Val	Ile	Ile	Lys	Gln	Gly	Cys	Leu	Leu	Lys	Gln
1				5					10					15	
Gly	His	Arg	Arg	Lys	Asn	Trp	Lys	Val	Arg	Lys	Phe	Ile	Leu	Arg	Glu
		20						25					30		
Asp	Pro	Ala	Tyr	Leu	His	Tyr	Tyr	Asp	Pro	Ala	Gly	Ala	Glu	Asp	Pro
		35					40					45			
Leu	Gly	Ala	Ile	His	Leu	Arg	Gly	Cys	Val	Val	Thr	Ser	Val	Glu	Ser
	50					55					60				
Asn	Ser	Asn	Gly	Arg	Lys	Ser	Glu	Glu	Glu	Asn	Leu	Phe	Glu	Ile	Ile
65				70						75					80
Thr	Ala	Asp	Glu	Val	His	Tyr	Phe	Leu	Ala	Gln	Ala	Thr	Pro	Lys	Glu
			85					90						95	
Arg	Thr	Glu	Trp	Ile	Lys	Ala	Ile	Gln	Met	Ala	Ser	Arg	Thr	Gly	Lys
			100					105						110	

<210> 116

<211> 113

<212> PRT

<213> Homo sapiens

<400> 116

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Asp Ala Phe Tyr Lys Asn Ile Val Lys Lys Gly Tyr Leu Leu Lys Lys
 1           5           10           15
Gly Lys Gly Lys Arg Trp Lys Asn Leu Tyr Phe Ile Leu Glu Gly Ser
      20           25           30
Asp Ala Gln Leu Ile Tyr Phe Glu Ser Glu Lys Arg Ala Thr Lys Pro
      35           40           45
Lys Gly Leu Ile Asp Leu Ser Val Cys Ser Val Tyr Val Val His Asp
      50           55           60
Ser Leu Phe Gly Arg Pro Asn Cys Phe Gln Ile Val Val Gln His Phe
      65           70           75           80
Ser Glu Glu His Tyr Ile Phe Tyr Phe Ala Gly Glu Thr Pro Glu Gln
      85           90           95
Ala Glu Asp Trp Met Lys Gly Leu Gln Ala Phe Cys Asn Leu Arg Lys
      100          105          110
Ser

```

<210> 117

<211> 111

<212> PRT

<213> Homo sapiens

<400> 117

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Met Asn Glu Val Ser Val Ile Lys Glu Gly Trp Leu His Lys Arg Gly
 1           5           10           15
Glu Tyr Ile Lys Thr Trp Arg Pro Tyr Phe Leu Leu Lys Ser Asp Gly
      20           25           30
Ser Phe Ile Gly Tyr Lys Glu Arg Pro Glu Ala Pro Asp Gln Thr Leu
      35           40           45
Pro Pro Leu Asn Asn Phe Ser Val Ala Glu Cys Gln Leu Met Lys Thr
      50           55           60
Glu Arg Pro Arg Pro Asn Thr Phe Val Ile Arg Cys Leu Gln Trp Thr
      65           70           75           80
Thr Val Ile Glu Arg Thr Phe His Val Asp Ser Pro Asp Glu Arg Glu
      85           90           95
Glu Trp Met Arg Ala Ile Gln Met Val Ala Asn Ser Leu Lys Gln
      100          105          110

```

<210> 118

<211> 120

<212> PRT

<213> Homo sapiens

<400> 118

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Thr Gln Glu Thr Pro Ser Ala Gln Met Glu Gly Phe Leu Asn Arg Lys
 1           5           10           15
His Glu Trp Glu Ala His Asn Lys Lys Ala Ser Ser Arg Ser Trp His
      20           25           30
Asn Val Tyr Cys Val Ile Asn Asn Gln Glu Met Gly Phe Tyr Lys Asp
      35           40           45

```

Ala Lys Thr Ala Ala Ser Gly Ile Pro Tyr His Ser Glu Val Pro Val
 50 55 60
 Ser Leu Lys Glu Ala Val Cys Glu Val Ala Leu Asp Tyr Lys Lys Lys
 65 70 75 80
 Lys His Val Phe Lys Leu Arg Leu Asn Asp Gly Asn Glu Tyr Leu Phe
 85 90 95
 Gln Ala Lys Asp Asp Glu Glu Met Asn Thr Trp Ile Gln Ala Ile Ser
 100 105 110
 Ser Ala Ile Ser Ser Asp Lys His
 115 120

<210> 119

<211> 104

<212> PRT

<213> Homo sapiens

<400> 119

Tyr Ala Leu Gly Lys Asp Cys Ile Met His Gly Tyr Met Ser Lys Met
 1 5 10 15
 Gly Asn Pro Phe Leu Thr Gln Trp Gln Arg Arg Tyr Phe Tyr Leu Phe
 20 25 30
 Pro Asn Arg Leu Glu Trp Arg Gly Glu Gly Glu Ala Pro Gln Ser Leu
 35 40 45
 Leu Thr Met Glu Glu Ile Gln Ser Val Glu Glu Thr Gln Ile Lys Glu
 50 55 60
 Arg Lys Cys Leu Leu Leu Lys Ile Arg Gly Gly Lys Gln Phe Ile Leu
 65 70 75 80
 Gln Cys Asp Ser Asp Pro Glu Leu Val Gln Trp Lys Lys Glu Leu Arg
 85 90 95
 Asp Ala Tyr Arg Glu Ala Gln Gln
 100

<210> 120

<211> 117

<212> PRT

<213> Mus musculus

<400> 120

Val Arg Lys Ala Gly Ala Leu Ala Val Lys Asn Phe Leu Val His Lys
 1 5 10 15
 Lys Asn Lys Lys Val Glu Ser Ala Thr Arg Arg Lys Trp Lys His Tyr
 20 25 30
 Trp Val Ser Leu Lys Gly Cys Thr Leu Phe Phe Tyr Glu Thr Asp Gly
 35 40 45
 Arg Ser Arg Ile Asp His Asn Ser Val Pro Lys His Ala Val Trp Val
 50 55 60
 Glu Asn Ser Ile Val Gln Ala Val Pro Glu His Pro Lys Lys Asp Phe
 65 70 75 80
 Val Phe Cys Leu Ser Asn Ser Leu Gly Asp Ala Phe Leu Phe Gln Thr
 85 90 95
 Thr Ser Gln Thr Glu Leu Glu Asn Trp Thr Ala Ile His Ser Ala Cys

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<210> 121
<211> 123
<212> PRT
<213> Mus musculus
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<400> 121
Leu Asn Ala Gly Ser Phe Pro Glu Ile Gln Gly Phe Leu Gln Leu Arg
 1              5              10              15
Gly Ser Gly Arg Gly Ser Gly Arg Lys Leu Trp Lys Arg Phe Phe Cys
              20              25              30
Phe Leu Arg Arg Ser Gly Leu Tyr Tyr Ser Thr Lys Gly Thr Ser Lys
              35              40              45
Asp Pro Arg His Leu Gln Tyr Val Ala Asp Val Asn Glu Ser Asn Val
              50              55              60
Tyr Val Val Thr Gln Gly Arg Lys Leu Tyr Gly Met Pro Thr Asp Phe
65              70              75              80
Gly Phe Cys Val Lys Pro Asn Lys Leu Arg Asn Gly His Lys Gly Leu
              85              90              95
His Ile Phe Cys Ser Glu Asp Glu Gln Ser Arg Thr Cys Trp Leu Ala
              100              105              110
Ala Phe Arg Leu Phe Lys Tyr Gly Val Gln Leu
              115              120

```

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<210> 122
<211> 116
<212> PRT
<213> Homo sapiens
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```

<400> 122
Asn Gln Asp Glu Ile Leu Val Ile Arg Lys Gly Trp Leu Thr Ile Asn
  1              5              10              15
Asn Ile Gly Ile Met Lys Gly Gly Ser Lys Glu Tyr Trp Phe Val Leu
      20              25              30
Thr Ala Glu Asn Leu Ser Trp Tyr Lys Asp Asp Glu Glu Lys Glu Lys
      35              40              45
Lys Tyr Met Leu Ser Val Asp Asn Leu Lys Leu Arg Asp Val Glu Lys
      50              55              60
Gly Phe Met Ser Ser Lys His Ile Phe Ala Leu Phe Asn Thr Glu Gln
 65              70              75              80
Arg Asn Val Tyr Lys Asp Tyr Arg Gln Leu Glu Leu Ala Cys Glu Thr
      85              90              95
Gln Glu Glu Val Asp Ser Trp Lys Ala Ser Phe Leu Arg Ala Gly Val
      100             105             110
Tyr Pro Glu Arg
      115

```

<210> 123
<211> 113
<212> PRT
<213> Rattus sp.

<400> 123
Thr Asp Gly Phe Ser Asp Val Arg Lys Val Gly Tyr Leu Arg Lys Pro
1 5 10 15
Lys Ser Met His Lys Arg Phe Phe Val Leu Arg Ala Ala Ser Glu Ala
20 25 30
Gly Gly Pro Ala Arg Leu Glu Tyr Tyr Glu Asn Glu Lys Lys Trp Arg
35 40 45
His Lys Ser Ser Ala Pro Lys Arg Ser Ile Pro Leu Glu Ser Cys Phe
50 55 60
Asn Ile Asn Lys Arg Ala Asp Ser Lys Asn Lys His Leu Val Ala Leu
65 70 75 80
Tyr Thr Arg Asp Glu His Phe Ala Ile Ala Ala Asp Ser Glu Ala Glu
85 90 95
Gln Asp Ser Trp Tyr Gln Ala Leu Leu Gln Leu His Asn Arg Ala Lys
100 105 110
Ala

<210> 124
<211> 117
<212> PRT
<213> Rattus sp.

<400> 124
Leu Leu Ala Gln Arg Asp Gly Thr Arg Lys Gly Tyr Leu Ser Lys Arg
1 5 10 15
Ser Ser Asp Asn Pro Lys Trp Gln Thr Lys Trp Phe Ala Leu Leu Gln
20 25 30
Asn Leu Leu Phe Tyr Phe Glu Ser Asp Ser Ser Ser Arg Pro Ser Gly
35 40 45
Leu Tyr Leu Leu Glu Gly Ser Ile Cys Lys Arg Met Pro Ser Pro Lys
50 55 60
Arg Gly Thr Ser Ser Lys Glu Ser Asp Lys Gln His His Tyr Phe Thr
65 70 75 80
Val Asn Phe Ser Asn Asp Ser Gln Lys Ser Leu Glu Leu Arg Thr Asp
85 90 95
Asp Ser Lys Asp Cys Asp Glu Trp Val Ala Ala Ile Ala Arg Ala Ser
100 105 110
Tyr Lys Ile Leu Ala
115

<210> 125
<211> 136
<212> PRT
<213> Rattus sp.

<400> 125

Leu	Asp	Thr	Ser	Gln	Thr	Phe	Val	Arg	Gln	Gly	Ser	Leu	Ile	Gln	Val
1				5					10					15	
Pro	Met	Ser	Glu	Lys	Gly	Lys	Ile	Asn	Lys	Gly	Arg	Leu	Gly	Ser	Leu
			20					25				30			
Ser	Leu	Lys	Lys	Glu	Gly	Glu	Arg	Gln	Cys	Phe	Leu	Phe	Ser	Lys	His
		35					40					45			
Leu	Ile	Ile	Cys	Thr	Arg	Gly	Ser	Gly	Ser	Lys	Leu	His	Leu	Thr	Lys
	50					55					60				
Asn	Gly	Val	Ile	Ser	Leu	Ile	Asp	Cys	Thr	Leu	Leu	Asp	Asp	Pro	Glu
65					70					75				80	
Asn	Met	Asp	Asp	Asp	Gly	Lys	Gly	Gln	Glu	Val	Asp	His	Leu	Asp	Phe
			85					90					95		
Lys	Ile	Trp	Val	Glu	Pro	Lys	Asp	Ser	Pro	Pro	Phe	Thr	Val	Ile	Leu
			100					105					110		
Val	Ala	Ser	Ser	Arg	Gln	Glu	Lys	Ala	Ala	Trp	Thr	Ser	Asp	Ile	Ile
		115					120						125		
Gln	Cys	Val	Asp	Asn	Ile	Arg	Cys								
	130					135									

<210> 126

<211> 10

<212> PRT

<213> Rattus sp.

<400> 126

Glu	Lys	Gly	Lys	Ile	Asn	Lys	Gly	Arg	Leu
1			5					10	

<210> 127

<211> 110

<212> PRT

<213> Homo sapiens

<400> 127

Ile	Gly	His	Lys	Lys	Gly	Ala	Thr	Lys	Met	Lys	Asp	Leu	Ala	Arg	Phe
1			5					10						15	
Lys	Pro	Met	Gln	Arg	His	Leu	Phe	Leu	Tyr	Glu	Lys	Ala	Ile	Val	Glu
			20					25				30			
Cys	Lys	Arg	Arg	Val	Glu	Ser	Gly	Glu	Gly	Ser	Asp	Arg	Tyr	Pro	Ser
		35					40				45				
Tyr	Ser	Phe	Lys	His	Cys	Trp	Lys	Met	Asp	Glu	Val	Gly	Ile	Thr	Glu
	50					55				60					
Tyr	Val	Lys	Gly	Asp	Asn	Arg	Lys	Phe	Glu	Ile	Trp	Tyr	Gly	Glu	Lys
65				70					75					80	
Glu	Glu	Val	Tyr	Ile	Val	Gln	Ala	Ser	Asn	Val	Asp	Val	Lys	Met	Thr
			85					90					95		
Trp	Leu	Lys	Glu	Ile	Arg	Asn	Ile	Leu	Leu	Lys	Gln	Gln	Glu		
		100					105						110		

<210> 128

<211> 112

<212> PRT

<213> Mus musculus

<400> 128

Leu	Ala	Asn	Tyr	Gly	Arg	Pro	Lys	Ile	Asp	Gly	Glu	Leu	Lys	Ile	Thr
1				5					10					15	
Ser	Val	Glu	Arg	Arg	Ser	Lys	Thr	Asp	Arg	Tyr	Ala	Phe	Leu	Leu	Asp
		20						25					30		
Lys	Ala	Leu	Leu	Ile	Cys	Lys	Arg	Arg	Gly	Asp	Ser	Tyr	Asp	Leu	Lys
		35					40					45			
Ala	Ser	Val	Asn	Leu	His	Ser	Phe	Gln	Val	Arg	Asp	Asp	Ser	Ser	Gly
	50					55				60					
Glu	Arg	Asp	Asn	Lys	Lys	Trp	Ser	His	Met	Phe	Leu	Leu	Ile	Glu	Asp
65					70					75				80	
Gln	Gly	Ala	Gln	Gly	Tyr	Glu	Leu	Phe	Phe	Lys	Thr	Arg	Glu	Leu	Lys
			85						90					95	
Lys	Lys	Trp	Met	Glu	Gln	Phe	Glu	Met	Ala	Ile	Ser	Asn	Ile	Tyr	Pro
			100					105					110		

<210> 129

<211> 113

<212> PRT

<213> Homo sapiens

<400> 129

Gly	Gln	Cys	Cys	Asn	Glu	Phe	Ile	Met	Glu	Gly	Thr	Leu	Thr	Arg	Val
1				5					10					15	
Gly	Ala	Lys	His	Glu	Arg	His	Ile	Phe	Leu	Phe	Asp	Gly	Leu	Met	Ile
		20						25					30		
Cys	Cys	Lys	Ser	Asn	His	Gly	Gln	Pro	Arg	Leu	Pro	Gly	Ala	Ser	Asn
		35					40					45			
Ala	Glu	Tyr	Arg	Leu	Lys	Glu	Lys	Phe	Phe	Met	Arg	Lys	Val	Gln	Ile
	50					55				60					
Asn	Asp	Lys	Asp	Asp	Thr	Asn	Glu	Tyr	Lys	His	Ala	Phe	Glu	Ile	Ile
65				70						75				80	
Leu	Lys	Asp	Glu	Asn	Ser	Val	Ile	Phe	Ser	Ala	Lys	Ser	Ala	Glu	Glu
			85					90						95	
Lys	Asn	Asn	Trp	Met	Ala	Ala	Leu	Ile	Ser	Leu	Gln	Tyr	Arg	Ser	Thr
			100					105					110		

Leu

<210> 130

<211> 144

<212> PRT

<213> Homo sapiens

<400> 130

Val Phe Leu Phe Thr Asp Leu Leu Leu Cys Thr Lys Leu Lys Lys Gln


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      1           5           10           15
Ser Gly Gly Lys Thr Gln Gln Tyr Asp Thr Cys Lys Trp Tyr Ile Pro
      20           25           30
Leu Thr Asp Leu Ser Phe Gln Met Val Asp Glu Leu Glu Ala Val Pro
      35           40           45
Asn Ile Pro Leu Val Pro Asp Glu Glu Leu Asp Ala Leu Lys Ile Lys
      50           55           60
Ile Ser Gln Ile Lys Ser Asp Ile Gln Arg Glu Lys Arg Ala Asn Lys
      65           70           75           80
Gly Ser Lys Ala Thr Glu Arg Leu Lys Lys Lys Leu Ser Glu Gln Glu
      85           90           95
Ser Leu Leu Leu Leu Met Ser Pro Ser Met Ala Phe Arg Val His Ser
      100          105          110
Arg Asn Gly Lys Ser Tyr Thr Phe Leu Ile Ser Ser Asp Tyr Glu Arg
      115          120          125
Ala Glu Trp Arg Glu Asn Ile Arg Glu Gln Gln Lys Lys Cys Phe Arg
      130          135          140

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<210> 131

<211> 19

<212> PRT

<213> Homo sapiens

<400> 131

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Gly Ser Lys Ala Thr Glu Arg Leu Lys Lys Lys Leu Ser Glu Gln Glu
  1           5           10           15
Ser Leu Leu

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<210> 132

<211> 137

<212> PRT

<213> Homo sapiens

<400> 132

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Met Ala Ala Val Ile Leu Glu Ser Ile Phe Leu Lys Arg Ser Gln Gln
  1           5           10           15
Lys Lys Lys Thr Ser Pro Leu Asn Phe Lys Lys Arg Leu Phe Leu Leu
      20           25           30
Thr Val His Lys Leu Ser Tyr Tyr Glu Tyr Asp Phe Glu Arg Gly Arg
      35           40           45
Arg Gly Ser Lys Lys Gly Ser Ile Asp Val Glu Lys Ile Thr Cys Val
      50           55           60
Glu Thr Val Val Pro Glu Lys Asn Pro Pro Pro Glu Arg Gln Ile Pro
      65           70           75           80
Arg Arg Gly Glu Glu Ser Ser Glu Met Glu Gln Ile Ser Ile Ile Glu
      85           90           95
Arg Phe Pro Tyr Pro Phe Gln Val Val Tyr Asp Glu Gly Pro Leu Tyr
      100          105          110
Val Phe Ser Pro Thr Glu Glu Leu Arg Lys Arg Trp Ile His Gln Leu
      115          120          125

```

Lys Asn Val Ile Arg Tyr Asn Ser Asp
130 135

<210> 133
<211> 20
<212> PRT
<213> Homo sapiens

<400> 133
Pro Pro Glu Arg Gln Ile Pro Arg Arg Gly Glu Glu Ser Ser Glu Met
1 5 10 15
Glu Gln Ile Ser
20

<210> 134
<211> 120
<212> PRT
<213> Rattus sp.

<400> 134
Asp Asp Pro Asp Leu Gln Ala Leu Leu Lys Gly Ser Gln Leu Leu Lys
1 5 10 15
Val Lys Ser Ser Ser Trp Arg Arg Glu Arg Phe Tyr Lys Leu Gln Glu
20 25 30
Asp Cys Lys Thr Ile Trp Gln Glu Ser Arg Lys Val Met Arg Ser Pro
35 40 45
Glu Ser Gln Leu Phe Ser Ile Glu Asp Ile Gln Glu Val Arg Met Gly
50 55 60
His Arg Thr Glu Gly Leu Glu Lys Phe Ala Arg Asp Ile Pro Glu Asp
65 70 75 80
Arg Cys Phe Ser Ile Val Phe Lys Asp Gln Arg Asn Thr Leu Asp Leu
85 90 95
Ile Ala Pro Ser Pro Arg Asp Ala Gln His Trp Val Gln Gly Leu Arg
100 105 110
Lys Ile Ile His His Ser Gly Ser
115 120

<210> 135
<211> 125
<212> PRT
<213> Homo sapiens

<400> 135
Val Leu His Leu Cys Arg Ser Leu Glu Val Gly Thr Val Met Thr Leu
1 5 10 15
Phe Tyr Ser Lys Lys Ser Gln Arg Pro Glu Arg Lys Thr Phe Gln Val
20 25 30
Lys Leu Glu Thr Arg Gln Ile Thr Trp Ser Arg Gly Ala Asp Lys Ile
35 40 45
Glu Gly Ala Ile Asp Ile Arg Glu Ile Lys Glu Ile Arg Pro Gly Lys

50		55		60
Thr Ser Arg Asp Phe Asp Arg Tyr Gln Glu Asp Pro Ala Phe Arg Pro				
65		70		75
Asp Gln Ser His Cys Phe Val Ile Leu Tyr Gly Met Glu Phe Arg Leu				80
	85		90	
Lys Thr Leu Ser Leu Gln Ala Thr Ser Glu Asp Glu Val Asn Met Trp				95
	100		105	
Ile Lys Gly Leu Thr Trp Leu Met Glu Asp Thr Leu Gln				110
	115		120	
				125

<210> 136
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 136
 Asp Arg Tyr Gln Glu Asp Pro
 1 5

<210> 137
 <211> 60
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic construct

<221> VARIANT
 <222> (7)...(60)
 <223> Amino acids may or may not be present

<221> VARIANT
 <222> (1)...(60)
 <223> Xaa = Any Amino Acid

<400> 137
Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg
1 5 10 15
Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa
20 25 30
Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser
35 40 45
Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser Arg Xaa Ser
50 55 60

<210> 138
 <211> 100
 <212> PRT
 <213> Artificial Sequence

<220>
<223> synthetic construct

<221> VARIANT
<222> (1)...(100)
<223> Xaa = Any Amino Acid

<221> VARIANT
<222> (11)...(100)
<223> Amino acids may or may not be present

<400> 138
Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg
1 5 10 15
Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg
20 25 30
Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa
35 40 45
Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser
50 55 60
Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa
65 70 75 80
Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg Arg Xaa Ser Xaa Arg
85 90 95
Arg Xaa Ser Xaa
100

<210> 139
<211> 80
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<221> VARIANT
<222> (1)...(80)
<223> Xaa = Any Amino Acid

<221> VARIANT
<222> (9)...(80)
<223> Amino acids may or may not be present

<400> 139
Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser
1 5 10 15
Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser
20 25 30
Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser
35 40 45
Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser
50 55 60

Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser Arg Xaa Xaa Ser
65 70 75 80

<210> 140
<211> 100
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<221> VARIANT
<222> (1)...(100)
<223> Xaa = Any Amino Acid

<221> VARIANT
<222> (11)...(100)
<223> Amino acids may or may not be present

<400> 140
Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys
1 5 10 15
Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg
20 25 30
Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa
35 40 45
Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa
50 55 60
Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser
65 70 75 80
Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys Arg Xaa Xaa Ser Lys
85 90 95
Arg Xaa Xaa Ser
100

<210> 141
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<221> VARIANT
<222> (1)...(160)
<223> Xaa = Any Amino Acid

<221> VARIANT
<222> (17)...(160)
<223> Amino acids may or may not be present

<400> 141

Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
1				5					10					15	
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
			20					25					30		
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
		35					40				45				
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
	50					55				60					
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
65				70					75					80	
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
			85					90					95		
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
		100						105					110		
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
		115					120				125				
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
	130					135				140					
Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa	Arg	Xaa	Lys	Arg	Xaa	Xaa	Ser	Xaa
145				150					155					160	

<210> 142

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 142

Thr	Tyr	Ala	Asp	Phe	Ile	Ala	Ser	Gly	Arg	Thr	Gly	Arg	Arg	Asn	Ala
1				5				10						15	
Ile															

<210> 143

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 143

Arg	Phe	Ala	Arg	Lys	Gly	Ala	Leu	Arg	Gly	Lys	Asn	Val
1				5				10				

<210> 144

<211> 43

<212> DNA

<213> Homo sapiens

<400> 144

agcttgacgt gcgcaaagtg cgctacctgc gcaaacccaa gag 43

<210> 145

<211> 49

<212> DNA

<213> Homo sapiens

<400> 145

catgcacaaa cgcttcttcg tactgcgcgc ggccagcgag gctgggggc 49

<210> 146

<211> 46

<212> DNA

<213> Homo sapiens

<400> 146

ccggcgcgcc tcgagtacta cgagaacgag aagaagtcgc ggcaca 46

<210> 147

<211> 46

<212> DNA

<213> Homo sapiens

<400> 147

agtcgagcgc ccccaaacgc tcgatcccc ttgagagctg cttcaa 46

<210> 148

<211> 46

<212> DNA

<213> Homo sapiens

<400> 148

catcaacaag cgggctgact ccaagaacaa gcacctggtg gctctc 46

<210> 149

<211> 54

<212> DNA

<213> Homo sapiens

<400> 149

tacaccggg acgagcactt tgccatcgcg gcggacagcg aggccgagca agac 54

<210> 150

<211> 34

<212> DNA

<213> Homo sapiens

<400> 150

agctggtacc aggctctcct acagctgcac aacg 34

<210> 151

<211> 53

<212> DNA

<213> Homo sapiens

<400> 151

aattcgttgt gcagctgtag gagagcctgg taccagctgt cttgctcggc etc 53

<210> 152

<211> 53

<212> DNA

<213> Homo sapiens

<400> 152

gctgtccgcc gcgatggcaa agtgctcgtc ccgggtgtag agagccacca ggt 53

<210> 153

<211> 53

<212> DNA

<213> Homo sapiens

<400> 153

gcttgttctt ggagtcagcc cgcttggtga tgttgaagca gctctcaagg ggg 53

<210> 154

<211> 53

<212> DNA

<213> Homo sapiens

<400> 154

atcgagcggt tgggggcgct cgacttggtc cgccacttct tctcgttctc gta 53

<210> 155

<211> 53

<212> DNA

<213> Homo sapiens

<400> 155

gtactcgagg cgcgccgggc cccagcctc gctggccgcg cgcagtacga aga 53

<210> 156

<211> 53

<212> DNA

<213> Homo sapiens

<400> 156

agcgtttgtg catgctcttg ggtttgcgca ggtagccac cttgcgcacg tca 53

<210> 157

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1) ... (57)

<223> Xaa=Any amino acid

<400> 157

Gly	Lys	His	Tyr	Gly	Val	Tyr	Ser	Cys	Glu	Gly	Cys	Lys	Gly	Phe	Phe
1				5					10					15	
Lys	Arg	Thr	Val	Arg	Xaa	Asp	Leu	Thr	Tyr	Thr	Cys	Arg	Asp	Asn	Lys
			20					25					30		
Asp	Cys	Leu	Ile	Asp	Lys	Arg	Gln	Arg	Asn	Arg	Cys	Gln	Tyr	Cys	Arg
		35					40					45			
Tyr	Gln	Lys	Cys	Leu	Ala	Met	Gly	Met							
50						55									

<210> 158

<211> 57

<212> PRT

<213> T. cystophora

<400> 158

Val	Lys	His	Tyr	Gly	Val	Phe	Ala	Cys	Glu	Gln	Cys	Lys	Gly	Phe	Phe
1				5					10					15	
Lys	Arg	Ser	Val	Arg	Asn	Asn	Arg	Lys	Tyr	Ser	Cys	Leu	Gly	Lys	Arg
			20					25					30		
His	Cys	Asp	Thr	Asp	Lys	Lys	Ser	Arg	Asn	Arg	Cys	Gln	Tyr	Cys	Arg
		35					40					45			
Phe	Gln	Lys	Cys	Val	Gln	Val	Gly	Met							
50						55									

<210> 159

<211> 83

<212> PRT

<213> Homo sapiens

<400> 159

[illegible]

<210> 160
<211> 61
<212> PRT
<213> Homo sapiens

<400> 160
Gly Tyr His Tyr Gly Val Trp Ser Cys Glu Gln Cys Lys Ala Phe Phe
1 5 10 15
Lys Arg Ser Ile Gln Gly His Asn Asp Tyr Met Cys Pro Ala Thr Asn
20 25 30
Gln Cys Thr Ile Asp Lys Asn Arg Arg Lys Ser Cys Gln Ala Cys Arg
35 40 45
Leu Arg Lys Cys Tyr Glu Val Gly Met Met Lys Gly Gly
50 55 60

<210> 161
<211> 57
<212> PRT
<213> Rattus sp.

<400> 161
Gly Cys His Tyr Gly Val Leu Thr Cys Gly Ser Cys Lys Val Phe Phe
1 5 10 15
Lys Arg Ala Val Glu Gly Gln His Asn Tyr Leu Cys Ala Gly Arg Asn
20 25 30
Asp Cys Ile Ile Asp Lys Ile Arg Arg Lys Asn Cys Pro Ala Cys Arg
35 40 45
Tyr Arg Lys Cys Leu Gln Ala Gly Met
50 55

<210> 162
<211> 20
<212> PRT
<213> Homo sapiens

<400> 162
Trp Ala Lys Arg Ile Pro His Phe Ser Glu Leu Pro Leu Asp Asp Gln
1 5 10 15
Val Ile Leu Leu
20

<210> 163
<211> 20
<212> PRT
<213> T. cystophora

<400> 163
Trp Ala Lys Arg Leu Pro His Phe Arg Asp Leu Ser Ile Ala Asp Gln
1 5 10 15
Val Val Leu Leu

20

<210> 164
<211> 20
<212> PRT
<213> Homo sapiens

<400> 164
Phe Ala Lys Lys Leu Pro Met Phe Ser Glu Leu Pro Cys Glu Asp Gln
1 5 10 15
Ile Ile Leu Leu
20

<210> 165
<211> 20
<212> PRT
<213> Homo sapiens

<400> 165
Phe Ala Lys Arg Leu Pro Gly Phe Thr Gly Leu Ser Ile Ala Asp Gln
1 5 10 15
Ile Thr Leu Leu
20

<210> 166
<211> 20
<212> PRT
<213> Homo sapiens

<400> 166
Tyr Ala Lys Ser Ile Pro Gly Phe Val Asn Leu Asp Leu Asn Asp Gln
1 5 10 15
Val Thr Leu Leu
20

<210> 167
<211> 20
<212> PRT
<213> Homo sapiens

<400> 167
Phe Ala Lys Gln Leu Pro Gly Phe Leu Gln Leu Ser Arg Glu Asp Gln
1 5 10 15
Ile Ala Leu Leu
20

<210> 168
<211> 20

<212> PRT

<213> Homo sapiens

<400> 168

Phe	Ala	Lys	Met	Ile	Pro	Gly	Phe	Arg	Asp	Leu	Thr	Ser	Glu	Asp	Gln
1				5					10					15	
Ile	Val	Leu	Leu												
			20												

<210> 169

<211> 20

<212> PRT

<213> Homo sapiens

<400> 169

Trp	Ala	Lys	Arg	Val	Pro	Gly	Phe	Val	Asp	Leu	Thr	Leu	His	Asp	Gln
1				5					10					15	
Val	His	Leu	Leu												
			20												

<210> 170

<211> 20

<212> PRT

<213> Homo sapiens

<400> 170

Trp	Ala	Lys	Ala	Ile	Pro	Gly	Phe	Arg	Asn	Leu	His	Leu	Asp	Asp	Gln
1				5					10					15	
Met	Thr	Leu	Leu												
			20												

<210> 171

<211> 20

<212> PRT

<213> Homo sapiens

<400> 171

Trp	Ser	Lys	Ser	Leu	Pro	Gly	Phe	Arg	Asn	Leu	His	Ile	Asp	Asp	Gln
1				5					10					15	
Ile	Thr	Leu	Ile												
			20												

<210> 172

<211> 9

<212> PRT

<213> Homo sapiens

<400> 172

Leu Leu Leu Arg Leu Pro Ala Leu Arg

1 5

<210> 173
<211> 9
<212> PRT
<213> T. cystophora

<400> 173
Val Ile Leu Arg Ile Pro Ala Leu Arg
1 5

<210> 174
<211> 9
<212> PRT
<213> Homo sapiens

<400> 174
Leu Leu Met Lys Val Thr Asp Leu Arg
1 5

<210> 175
<211> 9
<212> PRT
<213> Homo sapiens

<400> 175
Met Leu Met Lys Ile Thr Asp Leu Arg
1 5

<210> 176
<211> 9
<212> PRT
<213> Homo sapiens

<400> 176
Leu Leu Gln Lys Met Thr Asp Leu Arg
1 5

<210> 177
<211> 9
<212> PRT
<213> Homo sapiens

<400> 177
Met Leu Met Lys Leu Val Ser Leu Arg
1 5

<210> 178
<211> 9
<212> PRT
<213> Homo sapiens

<400> 178
Met Ile Gln Lys Leu Ala Asp Leu Arg
1 5

<210> 179
<211> 9
<212> PRT
<213> Homo sapiens

<400> 179
Leu Leu Leu Ile Leu Ser His Ile Arg
1 5

<210> 180
<211> 9
<212> PRT
<213> Homo sapiens

<400> 180
Leu Thr Lys Leu Leu Asp Ser Met His
1 5

<210> 181
<211> 9
<212> PRT
<213> Homo sapiens

<400> 181
Leu Thr Lys Leu Leu Asp Asn Leu His
1 5

<210> 182
<211> 6
<212> PRT
<213> T. cystophora

<400> 182
Phe Leu Met Glu Met Leu
1 5

<210> 183
<211> 6
<212> PRT

<213> Homo sapiens

<400> 183

Phe Leu Leu Asp Met Leu
1 5

<210> 184

<211> 6

<212> PRT

<213> Homo sapiens

<400> 184

Leu Phe Leu Glu Val Phe
1 5

<210> 185

<211> 6

<212> PRT

<213> Homo sapiens

<400> 185

Leu Ile Arg Glu Met Leu
1 5

<210> 186

<211> 6

<212> PRT

<213> Homo sapiens

<400> 186

Leu Leu Gln Glu Ile Tyr
1 5

<210> 187

<211> 6

<212> PRT

<213> Homo sapiens

<400> 187

Leu Leu Ser Glu Ile Trp
1 5

<210> 188

<211> 6

<212> PRT

<213> Homo sapiens

<400> 188

Leu Val Leu Glu Val Phe
1 5

<210> 189
<211> 6
<212> PRT
<213> Homo sapiens

<400> 189
Leu Leu Leu Glu Met Leu
1 5

<210> 190
<211> 6
<212> PRT
<213> Homo sapiens

<400> 190
Met Leu Ala Glu Ile Ile
1 5

<210> 191
<211> 6
<212> PRT
<213> Homo sapiens

<400> 191
Met Val Ser Glu Val Ile
1 5